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MAR 25 2010

## PREMARKET NOTIFICATION

### 510(k) SUMMARY

(As Required By 21 CFR 807.92)

This summary of 510(k) safety and effectiveness information is being submitted in accordance with the requirements of SMDA 1990 and 21 CFR §807.92.

The assigned 510(k) number is: k093831

Date: DEC 09 2009

#### 1. Submitter:

Health & Life Co., Ltd.  
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#### 2. Name of the Device:



Trade Name: Full Automatic (NIBP) Blood Pressure Monitor, Model HL868RT  
Common Name: Blood Pressure Monitor  
Classification Name: Noninvasive Blood Pressure Measurement System  
Classification: Class II  
Regulation Number: 21 CFR 870.1130  
Product Code: DXN  
Panel: Cardiovascular

#### 3. Information for the 510(k) Cleared Device (Predicate Device):

- A. Full Automatic (NIBP) Blood Pressure Monitor, Model HL868BF, K092161
- B. H&L Full Automatic Blood Pressure Monitor, Model 168ET, K043437

**4. Device Description:**

HL868RT automatically measures human's Systolic, Diastolic blood pressure and heart rate by using the oscillometric method. All values can be read out in one LCD panel. Measurement position is at human being's upper arm. The intended use of this over-the-counter device is for adults aged 18 years and older with arm circumference ranging from 9 inches to 17 inches (approx. 23 cm to 43 cm) and for home use.

The additional optional talking function equipped of this device can help the user to know how to use the device to measure the blood pressure and the pulse step by step, and let the user know the measurement results by hearing. Besides, the device will display a symbol  or , to indicate the detection of irregular heartbeat rhythm as defined as a rhythm is more than or less than 25% from the average heartbeat intervals during the measurement. Additionally, after measurement, the Risk Category Indicator function will show the information with the readings on the screen for the user tracking their blood pressure level. Furthermore, the user can save and manage the measurement data by transferring the measured readings of blood pressure to the connected personal computer (PC) via USB cable.

**5. Intended Use**

This device automatically measures human's Systolic, Diastolic blood pressure and heart rate by using the oscillometric method. All values can be read out in one LCD panel. Measurement position is at human being's upper arm. The intended use of this over-the-counter device is for adults aged 18 years and older with arm circumference ranging from 9 inches to 17 inches (approx. 23 cm to 43 cm) and for home use.

When the device detects the appearance of irregular heartbeats during measurement, an indicated symbol will appear with measuring readings. And this device can let the memory data be transferred to the connected personal computer (PC) via USB cable.

**6. Comparison of device to predicate device:****Product Specification Comparison Table of HL868RT and HL868BF (K092161)**

Item	Predicate HL868BF (K092161)	HL868RT
Method of measurement	Oscillimetric	Same as left

<b>Range of measurement</b>	Pressure 0- 300mmHg, Pulse 40-199 Beats/minute	Same as left
<b>Accuracy</b>	Pressure $\pm$ 3mmHg Pulse $\pm$ 5%	Same as left
<b>Inflation</b>	Automatic inflation (Air pump)	Same as left
<b>Deflation of Pressure</b>	Automatic air release control valve	Same as left
<b>Exhaust</b>	Automatic exhaust valve	Same as left
<b>Display</b>	Liquid Crystal Digital Display	Same as left
<b>Power Supply</b>	6V DC, 4 $\times$ "AA" (1.5V) Alkaline batteries or AC adapter (optional)	Same as left
<b>Storage Temperature</b>	- 20°C ~ + 70°C (- 4°F ~ +158°F), $\leq$ 90%RH	Same as left
<b>Operating Temperature</b>	10°C ~ 40°C (50°F ~ 104°F), 15% ~ 90%RH	Same as left
<b>Sets of memory</b>	3*80, total 240	2*60, total 120
<b>Number of Push Bottom</b>	5	7
<b>Storage pouch</b>	Yes	Same as left
<b>Cuff size</b>	Arm circumference approx. 23-43 cm (9~17 inches)	Same as left
<b>Unit Weight</b>	Approx. 312g excluding batteries	Approx. 293 $\pm$ 5g excluding batteries

**Changes from the predicate devices HL868BF (K092161):**

\* 7 push buttons, changing of exterior casing design

\* Additional product features of Risk Category Indicator, and Talking Function

For the product feature of Talking Function, was compared with the other predicate device H&L Full Automatic Blood Pressure Monitor, Model 168ET(K043437)

**7. Discussion of Clinical Tests Performed:**

HL868RT is compliant to the ANSI/AAMI SP-10:2002+A1:2003+A2:2006 Standard for Manual, electronic, or automated sphygmomanometers. All the relevant activities were performed by designate individual(s) and the results demonstrated that the predetermined acceptance criteria were fully met.

**8. Discussion of Non-Clinical Tests Performed for Determination of Substantial****Equivalence are as follows:**

The subject device was tested to evaluate its safety and effectiveness, including the followings:

- a. **Safety Test:** IEC 60601-1:1988+A1:1991+A2:1995 Medical electrical equipment - Part 1: General requirements for basic safety and essential performance
- b. **EMC Test:** IEC 60601-1-2:2001+A1:2004 Medical Electrical Equipment - Part 1-2: General requirements for safety - collateral standard: Electromagnetic compatibility - Requirements and Test
- c. **Reliability Test:** ANSI/AAMI SP-10:2002+A1:2003+A2:2006
- d. **Risk Assessment:** ISO 14971:2007 Medical devices - Application of risk management to medical devices
- e. **Software Verification and Validation:** IEC 62304 Ed. 1.0, Medical device software - Software life cycle processes. (Software/Informatics) and IEC 60601-1-4:2000 Consol. Ed. 1.1, Medical electrical equipment - Part 1-4: General requirements for safety -- Collateral standard: Programmable electrical medical systems
- f. **Usability Validation:** IEC 62366 Medical devices - Application of usability engineering to medical devices

**9. Conclusions:**

The subject device was tested and fulfilled the requirements of those standards mentioned above, and it's concluded that the subject device is substantially equivalent to the predicate devices.



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room W-O66-0609  
Silver Spring, MD 20993-0002

MAR 25 2010

Health and Life Co., Ltd.  
c/o Ms. Sara Su  
Deputy Manager  
9F., No. 186, Jian Yi Road  
Chung Ho City, Taipei County  
TAIWAN 235 R.O.C.

Re: K093831

Trade/Device Name: Full Automatic (NIBP) Blood Pressure Monitor, Model HL868RT

Regulatory Number: 21 CFR 870.1130

Regulation Name: Non-invasive Blood Pressure Measurement System

Regulatory Class: II (two)

Product Code: DXN

Dated: January 7, 2010

Received: January 25, 2010

Dear Ms. Su:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

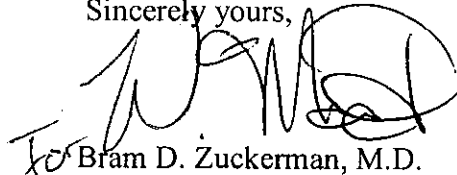
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Bram D. Zuckerman', is written over the typed name.

Bram D. Zuckerman, M.D.  
Director  
Division of Cardiovascular Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

**Indication for Use**510(k) Number (if known): k093831

Device Name: Full Automatic (NIBP) Blood Pressure Monitor, Model HL868RT

**Indications for Use:**

This device automatically measures human's Systolic, Diastolic blood pressure and heart rate by using the oscillometric method. All values can be read out in one LCD panel. Measurement position is at human being's upper arm. The intended use of this over-the-counter device is for adults aged 18 years and older with arm circumference ranging from 9 inches to 17 inches (approx. 23 cm to 43 cm) and for home use.

When the device detects the appearance of irregular heartbeats during measurement, an indicated symbol will appear with measuring readings. And this device can let the memory data be transferred to the connected personal computer (PC) via USB cable.

Prescription Use \_\_\_\_\_  
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use   V    
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE OF  
NEEDED)

Concurrence of CDRH, Office of Devices Evaluation (ODE)

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(Division Sign-Off)  
Division of Cardiovascular Devices510(k) Number k093831